



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/520,537

08/05/2005

Wolfgang Rohde

LU 6034 (US)

9275

34872

7590

04/08/2008

Basell USA Inc.

Delaware Corporate Center II

2 Righter Parkway, Suite #300

Wilmington, DE 19803

EXAMINER

EWALD, MARIA VERONICA

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

04/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,537	Applicant(s) ROHDE ET AL.	
	Examiner MARIA VERONICA D. EWALD	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-19 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10-17, 21-29, 31-33 is/are rejected.
- 7) ☒ Claim(s) 5, 10, 18, 19 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/05&1/08 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/08</u> . | 6) <input checked="" type="checkbox"/> Other: <u>translation of JP 06218792</u> . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 – 4, 7 – 8, 11 – 14, 21 – 23 and 26 – 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kagitani (JP 06218792, see translation) in view of Zuckerberg, et al. (U.S. 5,047,196).

With respect to claims 1, 3 – 4, 7 – 8, 11 – 12, 21 – 22, Kagitani teaches a device for partitioning an extruded or coextruded plastic parison to give at least one at least one semifinished open-surface product (item 36 – figure 1), comprising at least one means of partitioning the plastic parison (paragraphs 0005 - 0006 of translation) and at least one draw-off means for pulling the plastic parison over the means of partitioning thereby compensating for a resistance of the means of partitioning (item 42 – figure 1; paragraph 0007 of translation); wherein the draw-off surface is a guide roller with a smooth surface; wherein the draw-off means comprises at least one driven roll (paragraph 0007 of translation); wherein the means for partitioning the plastic parison comprises at least one of: (i) sharp-edged cutting units; and edgeless units (item 36 – figure 1; paragraphs 0006 and 0007 of translation); wherein the device further comprises a holder for at least one of the means of partitioning the plastic parison and

Art Unit: 1791

the draw-off means (paragraph 0006 of translation); wherein the holder is a spacer for the semifinished open-surface products (item 40 – figure 1; paragraph 0003; page 3 of translation); wherein the device further comprises means of guiding the semifinished open-surface products for controlling the distance between the semifinished products (item 42 – figure 1; paragraph 0007); wherein the means of guiding comprises guide rollers (item 42 – figure 1; paragraph 0003 of translation); wherein the guide rollers are driven (paragraph 0007 of translation) and wherein the guide rollers can be moved transversely to a direction of extrusion (figure 1).

Kagitani teaches an apparatus for partitioning a parison, wherein there is cutter disposed beneath the extruded parison. The cutter is comprised of one cutter having a cutting edge (item 36 – figure 1) which contacts the parison, or may be comprised of two cutter surfaces (paragraph 0007 of translation). Thus, the cutter is inherently comprised of sharp-edges or no edges, to effectively cut the extruded parison into two sheets. A guide roll (item 42 – figure 1) is disposed to draw-off the split products away from the cutter and downward. The guide roll, itself may be connected to a motor, which in turn, is connected to a controller. Such a combination, allows more precise control of the drawing-off of the products and allows the rate of “hanging” of the sheet to be controlled (paragraph 0007 of translation).

Kagitani, however, does not teach that the draw-off means is heatable or coolable. This, however, is an obvious modification, since the extruded parison itself is extruded in a heated state and is typically comprised of a resin or polymeric material, which is subsequently solidified in its cooled state. Controlling the heating or cooling of

Art Unit: 1791

the draw-off means ensures that the extruded and semifinished product is not prematurely solidified or heated above a specified temperature, which may produce a warped or deformed product.

For example, in a method to draw-off extruded adhesive tapes, Zuckerberg, et al. teach the use of cooled draw-off rollers (items 72, 74, and 76 – figure 5; column 5, lines 40 – 50). The draw-off rollers cools the extruded sheet as it passes through the rollers, setting the sheets in their final state.

Thus, because Kagitani and Zuckerberg, et al. teach the use of extruders to produce products, whether sheets or parisons, and it is known to one of ordinary skill in the art to control the heating and/or cooling of the extruded product to prohibit any warping or deformation of the product, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Kagitani such that the draw-off means are cooled or heated, as suggested by Zuckerberg, et al. for the dual purposes of preventing any warping or deformation of the product and promoting cooling of the product, thereby setting it in its final state as taught by Zuckerberg, et al.

With respect to claims 13 – 14, 23, 26 – 29, Kagitani further teaches a process comprising partitioning an extruded or coextruded plastic parison to give at least one semifinished open-surface product (figure 1; paragraph 0002 of translation), with a device comprising at least one means of partitioning a plastic parison (item 36 – figure 1), and at least one draw-off means for pulling the plastic parison over the means of

Art Unit: 1791

partitioning thereby compensating for a resistance of the means of partitioning (item 42 – figure 1; paragraph 0007 of translation), wherein the draw-off means is a guide roller with a smooth surface (item 42 – figure 1); wherein the draw-off means comprises at least two driven rolls (item 42 – figure 1); wherein the device further comprises a holder for at least one of the means of partitioning the plastic parison and the draw-off means (figure 1).

Kagitani teaches an apparatus for partitioning a parison, wherein there is cutter disposed beneath the extruded parison. A guide roll (item 42 – figure 1) is disposed to draw-off the split products away from the cutter and downward. The guide roll, itself may be connected to a motor, which in turn, is connected to a controller. Such a combination, allows more precise control of the drawing-off of the products and allows the rate of “hanging” of the sheet to be controlled (paragraph 0007 of translation).

Kagitani, however, does not teach that the draw-off means is heatable or coolable. This, however, is an obvious modification, since the extruded parison itself is extruded in a heated state and is typically comprised of a resin or polymeric material, which is subsequently solidified in its cooled state. Controlling the heating or cooling of the draw-off means ensures that the extruded and semifinished product is not prematurely solidified or heated above a specified temperature, which may produce a warped or deformed product.

For example, in a method to draw-off extruded adhesive tapes, Zuckerberg, et al. teach the use of cooled draw-off rollers (items 72, 74, and 76 – figure 5; column 5, lines

Art Unit: 1791

40 – 50). The draw-off rollers cools the extruded sheet as it passes through the rollers, setting the sheets in their final state.

Thus, because Kagitani and Zuckerberg, et al. teach the use of extruders to produce products, whether sheets or parisons, and it is known to one of ordinary skill in the art to control the heating and/or cooling of the extruded product to prohibit any warping or deformation of the product, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Kagitani such that the draw-off means are cooled or heated, as suggested by Zuckerberg, et al. for the dual purposes of preventing any warping or deformation of the product and promoting cooling of the product, thereby setting it in its final state as taught by Zuckerberg, et al.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al. and further in view of Hahn (U.S. 4,028,034). Kagitani and Zuckerberg, et al. teach the characteristics previously described but do not teach that the units are metallic. This is however, an obvious modification and known to one of ordinary skill in the art.

For example, Hahn teaches a device for partitioning a plastic parison to give at least one semifinished open-surface product (item 38 – figure 1; column 3, lines 10 – 25), using at least one means of portioning the plastic parison (column 3, lines 15 – 20), wherein the cutting units are metallic (column 3, lines 14 – 15). Metallic cutting units impart durability and wear resistance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Kagitani with the element(s) of Zuckerberg, et al., further configured with metallic units for the purpose of imparting durability and wear resistance to the cutting units.

Claim 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al. and further in view of Skov, et al. (U.S. 2003/0090024). Kagitani teaches the characteristics previously described but do not teach that the units are exchangeable.

In a method to cut a parison into multiple parts, Skov, et al. teach the use of a cutting member mounted in the base of a mold. The cutting member is comprised of a serrated cutting surface (figure 3); however, the cutting member may be exchanged for other cutting surfaces or cross-sections, depending on the desired separating action, material and wall thickness desired (paragraph 0040).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to exchange units depending on the separating action, wall thickness desired and material being cut, as taught by Skov, et al.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al., in view of Skov, et al. and further in view of Hahn.

Kagitani and Zuckerberg, et al. teach the characteristics previously described but do teach that the units are edgeless and bar-shaped.

Art Unit: 1791

In a method to cut a parison into multiple parts, Skov, et al. teach the use of a cutting member mounted in the base of a mold. The cutting member is comprised of a serrated cutting surface (figure 3); however, the cutting member may be exchanged for other cutting surfaces or cross-sections, depending on the desired separating action, material and wall thickness desired (paragraph 0040).

Similarly, Hahn teaches a device for partitioning a plastic parison to give at least one semifinished open-surface product (item 38 – figure 1; column 3, lines 10 – 25), using at least one means of portioning the plastic parison (column 3, lines 15 – 20), wherein the cutting units are metallic (column 3, lines 14 – 15). Metallic cutting units impart durability and wear resistance. Furthermore, the cutting units are bar-shaped.

Thus, Kagitani teaches the use of a cutting member to split a parison. Skov, et al. teach the use of a cutting member to cut a parison within a mold, into multiple parts and further teach that the cutting members may be exchanged and can take on a variety of forms and cross-sections. Hahn teaches the use of bar-shaped cutters to cut an extruded parison.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Kagitani with the element(s) of Zuckerberg, et al. as noted previously, further configured with the bar-shaped units as taught by Hahn, and as suggested by Skov, et al. because Skov, et al. teach the use of cutting members which may be of differing cross sections, for the purpose of effectively cutting the parison.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al., in view of Hahn and further in view of Cancio, et al. (U.S. 4,626,574). Kagitani, Zuckerberg, et al. and Hahn teach the characteristics previously described but do not teach that the units are metallic with a coating of plastic. This is also, an obvious modification, since plastic coatings, such as those of polytetrafluoroethylene (PTFE) or teflon are known agents with good release characteristics. Such coatings ensure that extruded materials do not adhere to surfaces, whether cutting or draw-off surfaces, which may warp or damage either the extruded sheet or the tool surface.

For example, in a method to extrude polyethylene sheets, Cancio, et al. teach the use of PTFE coated, draw-off rollers. The PTFE imparts good release characteristics to the rollers, thereby preventing any portion of the sheet from adhering to the roller surface (column 5, lines 40 – 50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Kagitani with the elements of Zuckerberg, et al. and Hahn further configured with the plastic coated units as taught by Cancio, et al. for the purpose of imparting good release characteristics to the units, ensuring that any portion of the sheet does not adhere to the unit surface, which may damage not only the sheet surface, but contaminate the unit surface.

Claims 24 – 25, 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al. Kagitani and Zuckerberg, et al.

Art Unit: 1791

teach the characteristics previously described but do not specifically teach that the holder and/or the guide rollers are heatable or coolable. It is noted that Zuckerberg, et al. already teach that the draw-off rollers for the film (items 72, 74, 76 – figure 5) are coolable for setting the sheet in its final state. Heating or cooling the holder or guide rollers, similar to heating or cooling the draw-off rollers ensures that the product, whether a sheet or a parison is not warped or damaged. Prolonged heating of the sheet, when contacting a roller surface, may damage the sheet. Similarly, any premature solidification may also warp the sheet as it contacts a roller surface.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Kagitani with heated or cooled rollers and holders as suggested by Zuckerberg, et al. for the purpose of preventing any warping or deformation of the product.

Claims 32 – 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagitani, in view of Zuckerberg, et al. and further in view of Hahn. Kagitani and Zuckerberg, et al. teach the characteristics previously described but do not teach that the means for partitioning is heated or cooled. This however, is an obvious modification and known to one of ordinary skill in the art.

For example, Hahn teaches a device for partitioning a plastic parison to give at least one semifinished open-surface product (item 38 – figure 1; column 3, lines 10 – 25), using at least one means of portioning the plastic parison (column 3, lines 15 – 20), wherein the cutting units are metallic (column 3, lines 14 – 15). The means of

Art Unit: 1791

partitioning the plastic parison is a heated wire, which produces a clean cut in a single step (column 3, lines 15 – 25).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Kagitani with the element(s) of Zuckerberg, et al., as noted, further configured with the heated cutter of Hahn for the purpose of cutting the parison cleanly in one single step, thereby resulting in a product of adequate quality.

Allowable Subject Matter

14. Claims 5, 10, 18 – 19 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the closest prior art references made of record fail to teach or suggest, a means of partitioning the plastic parison is a body of triangular cross-section which has been arranged transversely to a direction of extrusion. Furthermore, the closest prior art references made of record fail to teach or suggest, that the draw-off means has been set into recesses on the means of partitioning the plastic parison.

Response to Arguments

15. Applicant's arguments, see pages 7 – 10, filed January 9, 2008, with respect to the rejections as anticipated by the prior art references of Nielson, Skov, et al., Focke,

Art Unit: 1791

et al. and Hahn have been fully considered and are persuasive. Thus, in light of newly-amended independent claims 1 and 13, the rejections base on the prior art references listed above have been withdrawn. Each of the above references fails to teach a draw-off means as claimed. However, with respect to the rejection(s) based on the primary reference of Kagitani, the Examiner disagrees. Kagitani does teach a draw-off means which pulls the plastic parison over the partitioning means. Therefore, the rejection(s) based on Kagitani have been maintained. Furthermore, dependent claims have been rejected in view of Hahn and Skov, et al. teaching heating/cooling partitioning units and variation in the cutting elements cross-sections. In addition, Zuckerberg, et al. and Cancio, et al. are cited to teach heated/cooled draw-off rolls and plastic-coating(s) placed on such guide or draw-off rollers to impart releasability between the roll and sheet surfaces.

Upon further search and review, however, the Examiner has indicated allowable subject matter as noted above, since the prior art references made of record fail to teach a partitioning means comprised of a triangular body disposed transversely to the extrusion direction. Though Skov, et al. may teach that a cutting element be configured in a variety of cross sections, the cutting element of Skov, et al. is a circular cutting member placed within a mold to cut a molded article into multiple pieces, in the mold cavity. Thus, the parts are removed when the mold halves are separated. There is no suggestion in Skov, et al. that the cutting element be configured with a drive mechanism or downstream of an extruder, transverse to the extrusion direction.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA VERONICA D. EWALD whose telephone number is (571)272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/
Supervisory Patent Examiner, Art Unit 1791

MVE